

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application.

**Listing of Claims:**

1-39 (Canceled)

40. (New) A low cost method of on-site analysis of a surface having fingerprints and other indicia thereon comprising the steps of:

- a) providing at least one high intensity blue light emitting diode that will emit light in the wavelength range from about 400 to about 550 nm;
- b) compactly mounting said diode on a personal attachment device that is light-weight and allows the person wearing said device to work hands free and readily view a surface with a wide area;
- c) providing a portable power source for said diode, said source providing for selection of electric current at a level whereby said diode will have an extended lifetime;
- d) applying a fluorescing dye to the surface to be investigated, said dye being selected to fluoresce in light emitted in said wavelength range;
- e) maintaining current from said power supply to provide the desired luminous output from said diode for observing a wide area of said surface and for extending the wearing time of said attachment device;

f) illuminating the surface to which said dye has been applied with light emitted from said light emitting diode; and,

g) detecting fluorescent light from indicia or fingerprints on said surface by viewing said light through lens in goggles or eyeglasses that transmit the fluorescent light so that it is visible to the human eye allowing said viewing to be performed hands-free while applying said dye or after said dye has been applied.

41. **(New)** The method of claim 40 wherein multiple diodes are provided and including the step of cooling said diodes to extend observation time and diode lifetime.

42. **(New)** The method of claim 40 including the step of cooling said diode wherein said cooling is performed by a portable fan associated with the personal attachment device, said diode lifetime being at least 1000 hours.

43. **(New)** The method of claim 42 wherein the personal attachment device is head gear.

44. **(New)** The method of claim 40 wherein the portable power source is a 6-volt battery pack having associated resistor means selected to provide current in range from about 57 mA to about 87 mA.

45. **(New)** A compact, light-weight, low cost light source for detecting and analyzing fingerprints or other indicia on a surface to which a fluorescing dye is applied comprising:

a) at least one high efficiency, high brightness, light emitting diode, said diode being selected to emit and project light for a sustained

period onto a surface area in a wavelength range wherein the light emitted will cause said dye to fluoresce and transmit detectable light to reveal the presence of fingerprints or other indicia on the surface to which dye is applied;

b) a portable attachment device for mounting said light emitting diode on a person, said device being light weight, compact, and attachable to a person in a manner to provide hands free use of said light source whereby light emitted from said one diode may be directed to the surface area to which dye is applied during the application of dye and/or immediately thereafter; and

c) a portable power source for said light emitting diode, said power source including means for maintaining the current to said diode at a level that extends diode lifetime.

46. **(New)** The light source of claim 45 wherein said at least one diode emits light in the range from about 400 nm to about 550 nm at a minimum of about 640 mcd.

47. **(New)** The light source of claim 46 including an array comprising 2 to 100 light emitting diodes.

48. **(New)** The light source of claim 47 wherein said personal attachment device is a head set means.

49. **(New)** The light source of claim 48 including means for cooling said diodes to increase diode lifetime.

50. **(New)** The light source of claim 49 wherein said cooling means includes a fan.

51. **(New)** The light source of claim 45 wherein said at least one diode has been selected to emit light at a wavelength that produces light in the range from 400 nm to 550 nm that will cause dyes selected from the group consisting of rhodamine 6G dye and fluorescent dyes to visibly fluoresce and be seen through eyeglasses or goggles with green, orange, or red filters.

52. **(New)** The light source of claim 45 wherein the portable power source is selected from the group consisting of belt mounted battery packs, backpacks, and wrist packs.